

METALLURGICAL LITERATURE CLASSIFICATION																									
GROUPS													SUBGROUPS												
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<p>GOLUBEV, I. F.</p> <p>2</p> <p>The heat capacity of a nitrogen-hydrogen mixture ($3H_2 + N_2$) at high pressures. I. F. Golubev and N. V. Kul'-chinskii, <i>J. Chem. Ind. (U. S. S. R.)</i> 15, No. 6, 36-8 (1938).—The heat-capacity coeff. for this mixt. increases with pressure from 25° to 150°. The increase is greater at low temp. Up to 200 atm. the calcd. and found values agree, but above this pressure they diverge. The difference is greater at low temp. H. M. Leicester</p>																									

[illegible]

Dr. Technical Sci.
GOLUBEV, I. F., Senior Scientific Associate of the Sci Res Inst of Nitrogen

"Viscosity and Heat Conduction of Gases Under High Pressures." Sub 21
Feb 47, Moscow Order of Lenin Power Engineering Inst imeni V. M. Molotov

Dissertations presented for degrees in science and engineering in Moscow
in 1947

SO: Sum No. 457, 18 Apr 55

Golubev, I. F.

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria,
Physical-Chemical Analysis, Phase Transitions.

B-8

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3831.

Author : N.V. Meshcheryakov, I.F. Golubev,
Inst : State Scientific Research and Planning Institute of Nitrogen
Industry.

Title : Viscosity of Hydrocarbon Gaseous Mixtures at High Pressures.

Orig Pub: Tr. Gos. n.-i. i proyekt. in-ta azotn. prom-sti, 1954, vyp. 3,
27-45.

Abstract: The viscosity of gaseous mixtures methane (I) - propane (II),
ethane - ethylene, ethane - propylene at temperatures up to
250° and pressures up to 600 abs. atm. and of mixtures ethane -
ethylene - propylene at 50, 100 and 150° and pressures up to
450 abs. atm. was determined by the capillary method (RZhKhim,
1955, 53138). The lower the temperature is, the more the mix-

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Card : 1/3

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CIA-RDP86-00513R000515910010

USSR/Physical Chemistry - Thermodynamics, Thermochemistry, Equilibria,
Physical-Chemical Analysis, Phase Transitions.

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 3831.

B-8

determined by the rolling ball method and the data of the
authors were stated.

Card : 3/3

SOV/124-58-1-873

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 117 (USSR)

AUTHORS: Golubev, I. F., Meshcheryakov, N. V., Olevskiy, V. M.

TITLE: Rotor Rectification Columns With Turbulence Stimulation in Liquid and Vapor (Rotornyye rektifikatsionnyye kolonki s turbulizatsiyey zhidkosti i para)

PERIODICAL: Tr. Gos. n. -i. i proyekt. in-ta azotn. prom-sti, 1956, Nr 5, pp 316-328

ABSTRACT: The authors present designs for rotor-type rectification columns (glass or metal) with concurrent mechanical turbulence stimulation in the liquid and the vapor; these designs were developed and tested in the Process and Equipment Laboratory of the GIAP (Gosudarstvennyy institut azotnoy promyshlennosti - State Institute of the Nitrogen Industry). In operations on standard and working mixtures the columns exhibited an elevated effectiveness with a comparatively small hydraulic resistance. The angular speed of the rotor did not exceed 1400 rpm. The design of a multicylinder rotor rectification column with opposite-sense rotation of adjacent cylinders is described. The authors are of the opinion that columns of such type

Card 1/2

SOV/124-58-1-873

Rotor Rectification Columns With Turbulence Stimulation Liquid (cont.)

may be capable of high productivity. Considerations are adduced relative to the advisability of the application of rotor rectification columns with mechanical turbulence stimulators for vacuum rectification. Bibliography: 9 references.

Yu. A. Lashkov

Card 2/2

Golubev I.F.

USSR/Statistical Physics - Thermodynamics.

D-3

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11438

Author : Olexvskiy, V.M., Golubev, I.F.

Inst :

Title : A Study of the Vapor-Liquid Equilibrium at Commercial Pressures.

Orig Pub : Tr. Gos. n.-1, i proyekt, in-ta azot. prom-sti, 1956, vyp 6, 45-51

Abstract : An estimate is made of various methods of experimental investigation of the vapor-liquid equilibrium. The authors describe an instrument they employ for this purpose. The construction makes it possible, without introducing substantial disturbances to the state of the system, to sample from it both liquid and vapor phase and to operate at pressures above atmospheric. Experimental data are obtained for the equilibrium in the system of methyl alcohol -- water for various pressures at temperatures of 170, 200, and

Card 1/2

USSR/Statistical Physics - Thermodynamics

D-3

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11438

2350. The results are in good agreement with those obtained by other workers.

Bibliography, 12 titles.

Card 2/2

USSR / Gases.

D-7

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9064

Author : Golubev, I.F., Meshcheryakov, N.V.

Title : ~~Use of the Law of Corresponding States in the Determination~~
of the Viscosity of Gases at Various Temperatures and Pressures.

Orig Pub : Tr. gas. n.-i. i proyekt. in-ta azot. prom-sti, 1956, vyp. 6, 52-55

Abstract : It is shown that the law of corresponding states, in which one of the variables is the ratio of the viscosity of the substance at a pressure P and temperature to the viscosity at the same temperature and pressure of one atmosphere, namely η_p / η_t , gives a correct qualitative picture for the variation of viscosity of various substances (Referat Zhur Fizika, 1955, 641) with the temperature and pressure. The authors give a corresponding graph in the form of isotherms

Card : 1/2

OLEVSKIY, V.M., kand.tekhn.nauk; GOLUBEV, I.F., doktor tekhn.nauk

Vapor - liquid equilibrium in the systems tetrachloropropane-
tetrachloropentane and tetrachloropentane - tetrachloroheptane
at reduced pressures. Trudy GIAP no.7:42-46 '57.

(MIRA 12:9)

(Phase rule and equilibrium) (Paraffins) (Vapor pressure)

GOLUBEV, I.F., doktor tekhn.nauk

Determining the specific gravity of liquids and gases at high pressures by the hydrostatic weighing method. Trudy GIAP no.7:47-61 '57. (LIQUIDS--Density) (Gases--Density) (MIRA 12:9)

OLEVSKIY, V.M., kand.tekhn.nauk; GOLUBEV, I.F., doktor tekhn.nauk

Analysis of mixtures of xylene isomers by measuring viscosity
and freezing point. Trudy GIAP no.7:316-322 '57.

(MIRA 12:9)

(Xylene)

GOLUBEV, I.P., doktor tekhn.nauk; OLEVSKIY, V.M., kand. tekhn. nauk

Vapor - liquid equilibrium in the system acetic anhydride -
propionic acid. Trudy GIAP no.8:58-62 '57. (MIRA 12:9)
(Acetic anhydride) (Propionic acid) (Phase rule and equilibrium)

24(0)

PHASE I BOOK EXPLOITATION

SOV/2762

Golubev, Il'ya Fedorovich

Vyazkost' gazov i gazovykh smesey, spravochnoye rukovodstvo (Viscosity of Gases and Gas Mixtures; a Manual) Moscow, Fizmatgiz, 1959. 375 p.
6,000 copies printed.

Ed.: K.P. Gurov; Tech. Ed.: S.S. Gavrilov.

PURPOSE: This book is intended for members of scientific research institutes as well as for technical personnel concerned with gas viscosity problems.

COVERAGE: The book presents principles of the kinematic viscosity of gas and gas mixtures. Existing methods of measuring gas viscosity are reviewed and instruments used for this purpose described. Results of experimental viscosity measurements for liquids and gas under different temperature and pressure conditions are discussed and the relationship between gas viscosity and temperature is analyzed. Viscosity of compressed gas and gas mixtures and computation of viscosity coefficients are reviewed and results of experiments summarized. The appendix contains eleven tables listing viscosity index,

Card 1/5

Viscosity of Gases (Cont.)

SCV/2762

density of mercury vapors, mercury and gas contraction, coefficients of linear expansion of glass and platinum, etc. There are 161 references.

TABLE OF CONTENTS:

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2. Elementary kinematic-molecular theory of gas viscosity	7
3. Determination of the average velocity of the thermal motion of molecules	10
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Ch. II. Experimental Measurement of Gas Viscosity	24
1. Capillary method	26
Card 2/5	26

S/081/62/000/002/041/107
B151/B108

AUTHORS: Naziyev, Ya. M., Golubev, I. F.

TITLE: An equation for calculations on bicalorimeters of arbitrary form

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 171, abstract 2Ye36 (Izv. AN AzerbSSR. Ser. fiz.-matem. i tekhn. n., no. 6, 1960, 145 - 149)

TEXT: A simplified equation is deduced for the heat conductivity for bicalorimeters of arbitrary form. The results of calculations using this equation do not differ by more than 0.1 - 0.2% from those obtained using exact equations. [Abstracter's note: Complete translation.] ✓

Card 1/1

KLYACHNIKOV, V.M., kand. sel'khoz. nauk; GOLUBEV, I.F., kand.
sel'khoz. nauk; SHLEPANOV, V.M., red.

[Apparatus and equipment for demonstration farms] Pribory
i oborudovanie dlia oporno-pokazatel'nykh khoziaistv.
Moskva, Sel'khozizdat, 1962. 183 p. (MIRA 17:10)

GOLUBEV, I.F.; NAZIYEV, Ya.M.

Heat conductivity of gaseous saturated hydrocarbons at atmospheric pressure at different temperatures. Izv. AN Azerb. SSR, Ser.fiz.-mat. i tekhnauk no.5:97-104 '61. (MIRA 15:2)
(Hydrocarbons--Thermal properties)

Golubev, I. F.

AID Nr. 980-9 31 May

THERMAL CONDUCTIVITY OF SATURATED HYDROCARBONS AT VARIOUS TEMPERATURES AND HIGH PRESSURES (USSR)

Naziyev, Ya. M., and I. F. Golubev. IN: Akademiya nauk Azerbaydzhanskoy SSR, Izvestiya, Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 6, 1962, 113-118.
S/233/62/000/006/008/008

The data on the temperature and pressure dependence of thermal conductivity for normal alkanes (from methane to octane) can be generalized by means of existing theoretical and empirical formulas, but the applicability of these formulas is limited. In order to obtain a satisfactory generalization for alkanes, the authors used the known expression

$$\lambda_{p,t} - \lambda_t = f(\gamma), \quad (1)$$

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AID Nr. 980-9 31 May

THERMAL CONDUCTIVITY [Cont'd]

S/233/62/000/006/008/008

where $\lambda_{p,t}$ is the thermal conductivity at pressure (p) and temperature (t), λ_t is the thermal conductivity at atmospheric pressure and temperature (t), and γ is the specific gravity. A graphic presentation of (1) shows very good distribution of the experimental points along an averaged curve. The Vargaftik (1952) equation

$$\lambda_{p,t} = \lambda_t + B\gamma^n, \quad (2)$$

where B and n are constants, was generalized by means of the principle of corresponding states in the form

$$\frac{\lambda_{p,t} - \lambda_t}{\lambda_{(p,t)_c} - \lambda_{t_c}} = f\left(\frac{\gamma}{\gamma_c}\right), \quad (3)$$

where subscript c denotes critical data. It is necessary to determine

$$\Delta \lambda_c = \lambda_{(p,t)_c} - \lambda_{t_c}$$

for each of the alkanes. $\Delta \lambda_c$ can be obtained from (1) provided γ_c is known. All experimental data processed by means of (3) revealed very good distribution (average deviation, $\pm 3\%$) along a single curve, which confirms the validity

Card 2/3

AID Nr. 980-9 31 May

THERMAL CONDUCTIVITY [Cont'd]

8/233/62/000/006/008/008

of the principle of corresponding states for the class of saturated hydrocarbons in the coordinates of (3). Further, the authors used the relation proposed by Usmanov (1959)

$$\frac{q}{q_{\Delta s}} = f\left(\frac{s_2 - s_1}{R}\right), \quad (4)$$

where

$$q = \lambda(t_2 - t_1),$$

$$q_{\Delta s} = \lambda_{\Delta s}(t_2' - t_1'),$$

s_1 and s_2 are the absolute entropies at temperatures t_1 and t_2 , and R is the universal gas constant. Using relation (4) for n-hexane and n-heptane, the authors obtained very good distribution of the experimental points with a slight scattering of 3% along a single curve. Considerable divergence was found in the neighborhood of the saturation curve.

[EDW]

Card 3/3

44658

S/196/63/000/001/022/035

E073/E435

11.1410

AUTHORS: Golubev, I.F., Naziyev, Ya.M.

TITLE: Heat conductivity of n-hexane, n-heptane and n-octane at various temperatures and high pressures

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.1, 1963, 7, abstract 1 G35. (Tr. Energ. in-ta. AN AzerbSSR, v.15, 1962, 84-102, Azerb. summary)

TEXT: The heat conductivity of n-hexane, n-heptane and n-octane in the liquid and gaseous states within temperature range 20 - 360°C and pressures of 1 - 500 kg/cm² was measured. In the neighbourhood of the critical point, λ is strongly dependent on p and t. For isotherms near to the critical point, and also close to the critical pressure, maxima of heat conductivity were observed extending over a narrow range of pressures, which can presumably be explained by the occurrence of a convective heat exchange in the gap between the cylinders of the bicalorimeter. For determining λ , the regular temperature variation method was used. A detailed description of the bicalorimeter and the experimental method is given. Corrections for the temperature distribution within the Card 1/2

Heat conductivity ...

S/196/63/000/001/022/035
E073/E435

instrument, by considering the cooling of the internal cylinder placed into a thermally insulated external cylinder under boundary conditions of the second kind, are described in detail. The equations are derived assuming a constant temperature of the external cooling medium ($\lambda = \infty$, $\alpha = \infty$). In the above bicalorimeter, comprising two coaxial cylinders with the gap between them filled by the gas or liquid under investigation, the external cylinder acts as the ambient medium for the investigated layer and for this cylinder λ has a finite value. Therefore, instead of the measured value of the rate of cooling m_{meas} , it is necessary to substitute in the equation the real value of m and it is the magnitude of this that is determined when solving the problem. 14 references.

X

[Abstractor's note: Complete translation.]

Card 2/2

S/076/62/036/005/003/013
B101/B110

AUTHORS: Yefremov, Yu. V., and Golubev, I. F. ()
TITLE: Solubility of aminohendecanoic acid in aqueous solutions of alcohol

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 5, 1962, 986 - 988

TEXT: In conjunction with the production of high-purity ω -amino-hendecanoic acid for the synthetic fiber manufacture, its solubility was investigated in water-alcohol mixtures at 20 - 100°C. The crystallized acid was heated in a sealed ampoule with the alcohol dissolved in water until complete dissolution occurred. Results: (1) The solubility of ω -aminohendecanoic acid passes a maximum at 46% by weight of ethanol. (2) The solubility increases rapidly at higher temperatures and reaches 30% by weight at 100°C (in 46% by weight of ethanol). There are 2 figures and 1 table.

ASSOCIATION: Institut azotnoy promyshlennosti i produktov organicheskogo sinteza (Institute of the Nitrogen Industry and of Organic Synthesis Products)

Card 1/2

Solubility of...

S/076/62/036/005/003/013
B101/B110

SUBMITTED: July 20, 1960

Card 2/2

YEFREMOV, Yu.V.; GOLUBEV, I.F.

Surface tension of aqueous solutions of ammonia. Zhur.fiz.khim.
36 no.5:999-1000 My '62. (MIRA 15:8)

1. Gosudarstvennyy institut azotnoy promyshlennosti i produktov
organicheskogo sinteza.

(Ammonia) (Surface tension)

YEFREMOV, Yu.V.; GOLUBEV, I.F.

Surface tension at the liquid - gas interface at high pressures.
Zhur.fiz. khim. 36 no.6:1222-1225 Je'62 (MIRA 17:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy
institut azotnoy promyshlennosti i produktov organicheskogo
sinteza, Moskva.

IVANOVSKIY, F.P., kand. tekhn. nauk, red.; FURMAN, M.S., doktor khim.nauk, red.; SAMARIN, B.P., red.; KRICHEVSKIY, I.R., prof., doktor khim. nauk, red.; GOLUBEV, I.F., doktor tekhn.nauk, red.; KRASIL'SHCHIKOV, A.I., doktor khim. nauk, red.; KLEVKE, V.A., kand. tekhn. nauk, red.; LEVCHENKO, G.T., kand. khim. nauk, red.; GEL'PERIN, I.I., kand. tekhn. nauk, red.; OYSTRAKH, M.L., red.; KREYSBERG, A.Ya., red.; TSUKERMAN, A.M., red.; KOGAN, V.V., tekhn. red.

[Chemistry and technology of the products of organic synthesis; intermediate products for the synthesis of polyamides] Khimiia i tekhnologiya produktov organicheskogo sinteza; poluprodukty dlia sinteza poliamidov. Moskva, Goskhimizdat, 1963. 255 p. (MIRA 17:3)

1. Moscov. Gosudarstvennyy nauchno-issledovatel'skiy i proyekt-nyy institut azotnoy promyshlennosti. 2. Zamestitel' direktora Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti (for Ivanovskiy). 3. Zamestitel' direktora po nauchnoy chasti Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti (for Furman). 4. Glavnyy inzhener Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta azotnoy promyshlennosti (for Samarin).

AGAYEV, N.A.; GOLUBEV, I.F.

Viscosity of n-pentane in the liquid and gaseous state at high pressures and at various temperatures. Gaz.prom. no.5:45-50 '63.

(Pentane) (Viscosity)

(MIRA 16:6)

AGAYEV, N.A.; GOLUBEV, I.F.

Generalization of the data of the viscosity of saturated hydrocarbons at various temperatures and pressures. Khim. i tekhn. topl. i masel 8 no.6:28-30 Je '63. (MIRA 16:6)

(Hydrocarbons) (Viscosity)

AGAYEV, N.A.; GOLUBEV, I.P.

Viscosity of liquid and gaseous n-heptane and n-octane at
high pressures and different temperatures. Gaz. prom. 8 no.7:
50-53 '63. (MIRA 17:8)

GOLUBEV, I.F., doktor tekhn. nauk, prof.

Twin differential calorimeter for determining the thermal conductivity of gases and liquids at high pressures and different temperatures. Teploenergetika 10 no.12:78-82 D '63.

(MIRA 17:8)

1. Gosudarstvennyy institut azotnoy promyshlennosti.

AGAYEV, N.A.; GOLUBEV, I.F.

Viscosity of n-hexane in the liquid and gaseous state at high pressures and various temperatures. Dokl. AN SSSR 151 no.3:597-600
Jl '63. (MIRA 16:9)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
azotnoy promyshlennosti i produktov organicheskogo sinteza i
Energeticheskiy institut AN AzerbSSR. Predstavleno akademikom
V.A.Kirillinym.

(Hexane) (Viscosity)

L 1742-63

EPP(c)/ENT(m)/BRS Pr-4 WW/JN

ACCESSION NR: AP3004427

S/0020/63/151/004/0875/0878

AUTHORS: Golubev, I. F.; Agayev, N. A.

60
58

TITLE: Generalization of data concerning the viscosity of saturated hydrocarbons at various temperatures and pressures.

SOURCE: AN SSSR. Doklady*, v. 151, no. 4, 1963, 875-873

TOPIC TAGS: viscosity of hydrocarbon, hydrocarbon, saturated hydrocarbon, methane, ethane, propane, butane, pentane, hexane, heptane, octane.

ABSTRACT: The viscosities of C_1 - C_8 hydrocarbons at various temperatures and pressures are plotted as functions of density and molecular weight. The curves obtained are smooth but without a regularity that would permit obtaining values for C_8 hydrocarbons. A generalization

Card 1/2

L 1752-63

ACCESSION NR: AP3004427

2

$$\eta_{p, T} - \eta_T$$

$$\eta_{(p, T)_{\infty}} - \eta_{T_{\infty}}$$

based on corresponding state theory was plotted

as a function of $\frac{p}{p_{\infty}}$. This gave a smooth curve fitting all these

hydrocarbons and was suitable for interpolation and extrapolation calculations for values $0 < p/p_{\infty} \leq 3$. Orig. art. has: 4 figures and 2 tables and 1 formula

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i
proyektnyy institut azotnoy promyshlennosti i produktov
organicheskogo sinteza (State scientific-research and planning
Institute for the nitrogen industry and products of organic

March 1963
S. P. ME TH, CH

DATE ACQ: 21 Aug 63
NO REF SOV: 005

ENCL 00
OTHER: 014

Card 2/2

PODOLINSKY, I.P.; VOITSEV, I.P.

Diffusion in binary gas systems at high pressures. Gaz. prom. 9
no.2:50-54 '64. (NIRA 17:12)

GOLUBEV, I.F.; DOBROVOL'SKIY, O.A.

Measuring the density of nitrogen and hydrogen at low temperatures
and high pressures by hydrostatic suspension. Gaz. prom. 9 no.5:
43-47 '64. (MIRA 17:6)

GOLUBEV, I.F.; KAL'SINA, M.V.

Heat conductivity of nitrogen and hydrogen at temperatures
ranging from 20 to 195° C and pressures from 1 to 500 atm.
Gaz. prom. 9 no.8:41-43 '64. (MIRA 17:9)

DOBOVOL'SKIY, O.A.; BELYAYEVA, T.N.; GOLUBEV, I.P.

Measuring the density of methane by the hydrostatic suspension
method. Gaz. prom. 9 no.11:47-48 '64. (MIRA 17:12)

GOLUBEV, I.F.; AGAYEV, N.A.; ABAS-ZADE, A.A., prof., red.;
RASHEVSKAYA, T., red.

[Viscosity of saturated hydrocarbons] Viazkost' predel'-
nykh uglevodorodov. Baku, Azerbaidzhanskoe gos. izd-vo,
1964. 159 p. (MIRA 17:12)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR
(for Abas-Zade).

GOLUBEV, I.F., doktor tekhn. nauk, prof.; SOKOLOVA, V.P., inzh.

Heat transmission of ammonia at different temperatures and pressures. Teploenergetika 11 no.9:64-67 S '64. (MIRA 18:8)

1. Gosudarstvennyy institut azotnoy promyshlennosti.

DOEROVOL'SKIY, O.A.; GOLUBEV, I.F.

Measuring the density of helium. Gaz. prom. 10 no.7:53-54 '65.
(MIRA 18:8)

GOLUBEV, Ivan Fedorovich, prof.; OZEROV, V.N., red.

[Soil science with the fundamentals of geobotany] Pochvo-
vedenie s osnovami geobotaniki. Moskva, Kolos, 1964.
398 p. (MIRA 18:1)

22
R GOLUBEV, I. I.

Budrin, D. V., and Golubev, I. I. EFFECT OF HYDROGEN ON HEAT CONDUCTIVITY OF HEAT-INSULATING MATERIALS. *Trudy Vses. Inst. im. S. M. Kirova*, No. 17, 70-90 (1941). - The purpose was to determine the quantitative effect of H on the heat conductivity of insulators, in order to calculate more accurately the heat requirements of refractory-lined furnaces in which reducing atmosphere is maintained by means of H. The insulating materials studied were granulated: vermiculite and diatomite, and diatomite brick. For studying the heat conductivity of the granular materials a spherical calorimeter (the Nusselt calorimeter, of *Forsch. Gebiete Ingenieurw.*, 1909, [63/64] was used). The brick were studied in a cubical calorimeter. Both calorimeters are described. The heat conductivity was determined in pure N, pure H, and various mixtures of the two temperatures of 0 to 800°. As the H content in the atmosphere increased, the conductivity of the granular materials rose. The effect of H was greater at lower temperatures (2.0 times at 0°) than at higher temperatures (1.7 times at 700°). For materials of high volume-weight the relation between the H content and the conductivity is practically linear between 0° and 100°. The effect of H on conductivity was stronger in diatomite than in vermiculite. The increase in conductivity with temperature was greater in vermiculite than in diatomite. The effect of H on the conductivity of brick was generally the same as on granular materials, but less pronounced. The experimental data are tabulated.

GOLUBEY, I. I., AND KAYUSHIN, L. P., L'VOV, K. M.

"Study of the Excitable Tissues (Nerve, Muscle) with ESR."

report submitted for the 1st Intl, Biophysics Congress, Stockholm
31 July - 4 August 1961.

GOLOBEV, I.I., KAYUSHIN, L.P., LVOV, K.M.

"Study of the Excitable Tissues (Nerve, Muscle) with ESR."

report presented at the Intl. Biophysics Congress, Stockholm, Sweden, 31 July -
4 August 1961.

Institute of Biophysics, USSR Academy of Sciences, Moscow, USSR.

GOLUBEV, I. M., KOFMAN, Y. B., SAZONENKO, M. K., KAYUSHIN, L. P., and
LVOV, K. M. (USSR)

"Free Radicals in Muscle and Muscle Proteins."

Report presented at the 5th International Biochemistry Congress,
Moscow, 10-16 Aug 1961

KAYUSHIN, L.P.; KOFMAN, Ye.B.; GOLUBEV, I.N.; L'VOV, K.M.; PULATOVA,
M.K.

Transfer of energy released by the hydrolysis of adenosinetriphosphoric
acid to contractile proteins. Biofizika 6 no. 1:20-23 '61.
(MIRA 14:2)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(MUSCLES—MOTILITY) (ADENOSINETRIPHOSPHORIC ACID)

VAN LIN-FAN [Wang Ling-fang]; L'VOV, K.M.; SAZONENKO, M.K.; KAYUSHIN,
L.P.; GOLUBEV, I.N.

Role of free radicals in muscle contraction. Biofizika 7 no.4:
479-480 '62. (MIRA 15:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(MUSCLES--MOTILITY) (RADICALS (CHEMISTRY))

ACCESSION NR: AP4042475

S/0217/64/009/004/0423/0427

AUTHOR: Umrikhina, A. V.; Golubev, I. N.; Kayushin, L. P.;
Krasnovskiy, A. A.

TITLE: A study of the paramagnetic properties of chlorophyll and
its analogs

SOURCE: Biofizika, v. 9, no. 4, 1964, 423-427

TOPIC TAGS: tetrapyrrol pigment, chlorophyll, ethyl chlorophyllide,
pheophytin, phthalocyanin, magnesium phthalocyanin, EPR signal,
paramagnetic property, light effect, chlorophyll aggregation, EPR
signal temperature dependence, protoporphyrin, hematoporphyrin

ABSTRACT: The article describes a study of the EPR signals of chloro-
phyll and some of its structurally different analogs, namely,
pheophytin, ethyl chlorophyllide, hemato- and protoporphyrin, and
phthalocyanin and Mg-phthalocyanin. The pigments were examined
in the form of solid crystalline samples in glass ampuls, either
evacuated or in the presence of air. All the pigments gave a similar

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ACCESSION NR: AP4042475

EPR signal in the dark; the signal was a singlet with a g-factor close to that of a free electron; different pigments displayed small variations in signal width. This observation led to the conclusion that the presence of the unpaired electrons producing the signal is the result of the system of conjugated double bonds of the porphyrin ring, and not the presence or absence of such structural elements as a phytol group, a cyclopentanone ring, or side radicals. In addition, the effect of light on the EPR signal was studied for all the pigments and the effect of temperature and oxygen for chlorophyll a + b only. It was found that all solid pigments produced an increased signal in vacuum which attained its maximum in about 5—10 min. In air the signal (for chlorophyll a + b) increased more than in vacuum. Experiments with films and solutions of chlorophyll a + b indicated that the degree of the pigment aggregation has a significant effect on the signal. The effect of light on phthalocyanin and Mg-phthalocyanin was somewhat different, resulting in an initial increase, then a subsequent decrease of the signal. The temperature dependence of the chlorophyll a + b signal has a maximum at approximately 40C. The nature of the photoinduced signal was not investigated more closely; it is believed that this signal is caused by unpaired

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ACCESSION NR: AP4042475

electrons which arise as a result of an interaction of the excited molecules of chlorophyll with oxygen molecules. It is concluded that the unpaired electrons are dislocated in the conjugated double-bond system or in "active centers" and defects of the crystal lattice of the pigments. The study is considered qualitative, and an evaluation of the quantum yield of the formation of unpaired electrons is suggested. Orig. art. has: 6 figures.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR, Moscow (Biophysics Institute, AN SSSR); Institut biokhimii im. A. N. Bakha, AN SSSR, Moscow (Biochemistry Institute, AN SSSR)

SUBMITTED: 10Jun62

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NO REF SOV: 003

OTHER: 001

Card 3/3

SOV/147-59-2-8/20

AUTHOR: Golubev, I.S.

TITLE: Some Problems of Stability of Sandwich Plates with a Light Filler (Nekotoryye voprosy prochnosti trekhsloynnykh plastin s legkim zapolnitelem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1959, Nr 2, pp 62-71 (USSR)

ABSTRACT: The author considers the equilibrium of sandwich panels which constitute elements of an aircraft wing (Fig 1) under the following assumptions:
 1) there is no twisting (torsion) of the wing;
 2) the width of each panel is greater than its length and the deformations of the panels have a cylindrical character;
 3) within the boundaries of each panel considered (i.e. between two neighbouring wing ribs which are taken to be absolutely rigid in their plane) the wing is of a constant strength, i.e. the normal stress

$$\sigma = \frac{M_{\text{wing}} Y}{I_{\text{wing}}} = \text{const}$$

Card 1/7 (M_{wing} is the wing bending moment, I_{wing} is the

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Some Problems of Stability of Sandwich Plates with a Light Filler

second moment of the wing cross-section area and $2Y$ is the wing thickness). This assumption means that bending moment varies linearly and that there are no tangential stresses in the skin of the wing or in the walls of the spars. In practice they exist, of course, but their effect on the stresses in the central part of the panel are not important compared with the normal stresses;

4) the thickness of the filler and the skin within each panel are constant. Resulting from the second assumption instead of the whole panel we may now consider only a plate of unit thickness, which as shown in Fig 2 is acted upon by unknown constraining moments M_1 on the supports, an axial force

$P_{kp} = 2\sigma b = P_x$, the reactions of the ribs $P_H \approx P_w$ and the uniformly distributed transverse load q_a . Depending upon the mechanical properties of the filler and the relative thickness of the outer skin and the filler layer, either symmetric or skew-symmetric deformation can occur. Considering first the skew-

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Some Problems of Stability of Sandwich Plates with a Light Filler

symmetric buckling of the plate, which is most likely to occur in practice, due to the above loading the panel will be in compression, bending and shear. The shearing force will be taken by the filler and since its shear modulus G_H is much less than the corresponding modulus G of the outer skin, the resulting deformation due to shear cannot be neglected. By considering the curvature of the panel as resulting from bending and shearing (Eq 1) the differential equation for the deformation of the axis of the panel is obtained (Eq 8) in which ψ is a coefficient representing the share of the outer skin in transmitting the shear force. The unknown restraining moment M_T on the support is determined from the geometric conditions of the deformation of the panel by considering the whole ring, which leads to Eq (10), while transverse deflection y is obtained by integration of the differential equation $\frac{d^2y}{dx^2}$ for the whole wing, which results in Eq (11),

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Some Problems of Stability of Sandwich Plates with a Light Filler

where 2α is the taper angle of the wing in the Xoy-plane. By these relations Eq (12) is finally obtained giving M_{H} , hence the maximum normal stress in the outermost fibres may be computed by Eq (13), its value at $x = 0$ and $x = l/2$ being as given by Eq (14) and (14') respectively. The tangential stress is given by Eq (15), the maximum value of which occurs for

$$x = \frac{l}{2} \pm \frac{\pi}{2k}$$

Turning now to the problem of the ultimate load carrying capacity of the panel, it is assumed that the destruction of the structure will occur when the total stress at any point of the outer skin or the filler reaches its limiting value (Eq 16). For the case when

$\frac{k l}{2} = \pi$ is possible, M_{H} and w tend to grow indefinitely and the axial force P_x obtains its maximum possible value as given by Eq (17). A similar formula has been obtained by S.Timoshenko (Ref 4) for compression and bending of rods when shear is taken

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Some Problems of Stability of Sandwich Plates with a Light Filler

into account. Experiments were made by the author on specimens 370 mm long with total thickness H in the range from 5 to 22 mm. Fig 3 shows the method of loading and the results of these experiments as well as the theoretical curves, Eq (14), (15), (16) and (27). The skin was made of dural ALCLAD 24 ST AN-Al3, 0.55 mm in thickness. The filler was thermoreactive foamy plastic FK-20 of specific gravity 0.15 to 0.18 gm/cm³. The results are valid for panels whose widths are 3 to 4 times their lengths but they may be used for the analysis of panels which are in compression along their shorter sides which are simply supported, while longer sides are clamped, as shown in Fig 4, where in addition to this compressive load the panel is also bent by a transverse uniformly distributed load q_a . As shown by V.M.Plekhanov (Ref 3), sandwich panels deform almost in the same manner as the isotropic panels, hence from now on they will be considered as isotropic. Further, it is shown in Ref 1 and 2, that the effect of the shorter sides extends over a width equal to half the length of the panel inwards from each

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Some Problems of Stability of Sandwich Plates with a Light Filler

side (see Fig 4). Assuming now that the cross-section of the wing remains plane (i.e. it does not warp), that the change in length of the panel (Δl) is partly due to compression and partly due to bending of the panel and that the stress in the central portion is constant - $\sigma(2)$ - and increasing linearly to $\sigma(1)$ on the edges, Eq (20) is developed, which together with Eq (19) solves the problem, the corresponding limiting stresses being given by Eq (21) to (23). All these relations apply to the case of skew-symmetric warping of the skin. For the case of symmetric warping, the skin behaves like a plate on an elastic medium and its deflection is given by Eq (24). Depending upon the parameter of Eq (25) (where D is the cylindrical rigidity of the skin, E_H modulus of elasticity of the filler, H is the mean thickness of the panel, δ is the thickness of the skin and σ is the compressive stress in it) the solution of Eq (24) will be either that of Eq (26) or (26'). Numerical analysis

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Some Problems of Stability of Sandwich Plates with a Light Filler

of these solutions show that if $\kappa < 0$, u_2 are nearly equal zero and panel deforms skew-symmetrically, and if $\kappa > 0$, u_1 is effective and panel deforms symmetrically. The value of σ for $\kappa = 0$ determines the load carrying capacity of the panel for symmetric case of deformation (Eq 27) which has been confirmed by the experiments. There are 4 figures and 4 Soviet references.

ASSOCIATION: Moskovskiy aviatsionnyy institut, Kafedra 8-1
(Moscow Institute of Aeronautics, 1st Chair of
Aircraft Structures)

SUBMITTED: January 2, 1959

Card 7/7

GOLUBEV, I. S., Cand Tech Sci (diss) -- "Computation of strength and selection of parameters for plane three-layer panels with light filler". Moscow, 1960.

10 pp (Min Higher and Inter Spec Educ RSFSR, Moscow Order of Lenin Aviation

Inst Im Sergo Ordzhonikidze), 160 copies (KL, No 15, 1960, 134)

GOLUBEV, I.S. (Moskva)

Remote post-commissurotomy latent rheumatic carditis. Klin.med. 36
no.5:73-79 My '58 (MIRA 11:7)

1. Iz kafedry propedevtikirnutrennikh bolezney (dir. - prof. A.M. Damir) II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova)
(COMMISUROTOMY, complications,
postop. remote latent rheym. carditis (Rus))
(RHEUMATIC HEART DISEASE,
post-commissurotomy latent (Rus))

GOLUBEV, I.S., Cand Med Sci --(disc) "Diagnosis of latent form of rheumatism in patients suffering from rheumatic sclerosis of the mitral valve and subject to a commissurotomy operation." Mos, 1959. 16 pp (Second Mos State Med Inst in N.I. Pirogov), 250 copies (HI,30-59, 122

- 46 -

GOLUBEV, I.S.

Diagnosis of rheumatic fever in commissurotomy patients (with summary in English). Khirurgiya 35 no.1:99-105 Ja '59. (MIRA 12:2)

1. Iz kliniki propedevtiki vnutrennikh bolezney (zav. - prof. A.M. Damir) pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I. Pirogova.

(COMMISSUROTOMY,
preop. diag. of rheum.(Rus))
(RHEUMATIC HEART DISEASE, diagnosis,
preop. in commissurotomy (Rus))

GOLUBEV, I.S., kand.med.nauk; ZOL'NIKOV, S.M., kand.med.nauk;
KOVANEV, V.A., kand.med.nauk

Preoperative treatment of patients with mitral stenosis with
reserpine and its effect on the arterial pressure during
anesthesia. Khirurgiia no.1:50-57 '62. (MIRA 15:11)

1. Iz Instituta serdechno-sosudistoy khirurgii (dir. - prof.
S.A. Kolesnikov, nauchnyy rukovoditel' - akad. A.N. Bakulev)
AMN SSSR.

(MITRAL VALVE—DISEASES) (BLOOD PRESSURE)
(RESERPINE)

ZOL'NIKOV, S. M.; GOLUBEV, I. S.

Effect of reserpine on arterial pressure during anesthesia in
an experiment on animals. Eksper. khir. i anest. no.2:70-76
'62. (MIRA 15:6)

1. Iz Instituta grudnoy khirurgii (dir. - prof. S. A. Kolesnikov,
nauchnyy rukovoditel' - akad. A. N. Bakulev) AMN SSSR.

(RESERPINE) (ANESTHESIA) (BLOOD PRESSURE)

GOLUBEV, I.S., kand. med. nauk

Preoperative preparation of patients with rheumatic heart defects. Kardiologiya 5 no.2:74-76 '63 (MIRA 17:2)

1. Iz kardiologicheskogo otdeleniya (zav - prof. V.Ye. Nezlin) Instituta serdechno-sosudistoy khirurgii (dir.- prof. S.A.Kolesnikov, nauchnyy rukovoditel' - akademik A.N.Bakulev) AMN SSSR.

CHELIKIDI, R.F.; GOLUBEV, I.S. (Moskva, I-327, g. Babushkin, Kalyayevskaya ulitsa, dom 25, kv.7); ZOL'NIKOV, S.M.

Effect of reserpine on the dynamics of the electrocardiogram during mitral commissurotomy. Grud. khir. 6 no.2:58-62 Mr-Ap '64. (MIRA 18:4)

1. Laboratoriya funktsional'noy diagnostiki (zav. - kand. med. nauk G.G.Gel'shteyn) i laboratoriya anesteziologii (ispolnyayushchiy obyazannosti zaveduyushchego - kand. med. nauk S.M.Zoi'nikov) Instituta serdechno-sosudistoy khirurgii (dir. - prof. S.A.Kolesnikov, nauchnyy rukovoditel' - akademik A.N.Bakulev) AMN SSR, Moskva.

GOLUBEV, I.S., kand. med. nauk; RYZHKOV, Ye.V., kand. med. nauk; KHARIN, V.Yu.,
kand. med. nauk

Arteriovenous aneurysm of the lung. Sov. med. 27 no.3:28-32 Mr '64.
(MIRA 17:11)

1. Institut serdechno-sosudistoy khirurgii (dir. - prof. S.A. Kolesnikov,
nauchnyy rukovoditel' - akademik A.N. Bakulev) AMN SSSR.

ZOL'NIKOV, S.M.; GOLUBEV, I.S., kand. med. nauk; PARFENOV, A.P., kand. med. nauk

Use of pyridoxine in patients with rheumatic heart defects and its influence on anesthesia. Khirurgiia 40 no.7:23-28 J1 '64.

(MIRA 18:2)

1. Institut serdechno-sosudistoy khirurgii (dir. - prof. S.A. Kolesnikov, nauchnyy rukovoditel' - akademik A.N. Bakulev) AMN SSSR, Moskva.

GOLUBEV, I. YE.

27273. GOLUBEV, I. YE. Vzaimodeystvie organizma i usloviy vneshney sredy na techenie brutselleznoy infektsii u loshadey. Veterinariya, 1949, No.9, s. 20-22.

So: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949.

"Interaction of the Organism and Environmental Conditions on the Course of
Brucellosis in Horses,"
L'vov Vet. Inst.

I. Ye. GOLUBEV, author of "Poultry Plague," Veterinariya (Veterinary Medicine)
Vol. 28, No. 11, November 1951, page 38.

SO: [REDACTED] U-4502; 28 August 1953. [REDACTED]. Co-106

(From: NEW BOOKS ON VETERINARY MEDICINE Veterinariya, No. 11, pp. 63,64, Nov. 1951,
Moscow, Russian no per.)

Name: GOLUBEV, Iosif Yefimovich

Dissertation: Brucellosis of Horses (Epizootology, Pathogenesis,
Clinical-Anatomical Changes, Course, Diagnostics,
Measures)

Degree: Doc Vet Sci

Affiliation: [not indicated]

Defense Date, Place: 11 Jul 56, Council of All-Union Inst of Exper-
imental Veterinary Science

Certification Date: 17 Nov 56

Source: BMVO 6/57

GOLUBEV, I.Ys. [Golubeu, I.N.]; TUZOVA, R.V. [Tuzava, R.V.];
ZHARYKOV, I.S. [Zharykau, I.S.]

Moisei Kalinovich IUskovets. Vestsi AN BSSR. Ser.bifal.nav.
no.3:102-107 '58. (MIRA 11:11)
(IUskovets, Mosei Kalinovich, 1898)

GOLUBEV, I.Ye., doktor veterin.nauk

Brucella resistance to freezing and thawing. Trudy NIVI 1:26-28
160. (MIRA 15:10)

(Brucella)

GOLUBEV, I.Ye., prof.; GRIGOR'YEV, I.F., kand.veterin.nauk; KRAYEGVA,
V.I., kand.veterin.nauk; GAVRICHENKOV, A.I., kand.veterin.nauk;
DOLMATOVICH, V.M., veterinarnyy vrach; SHCHERBAKOV, A.F.,
veterinarnyy vrach

Immunization of swine against cholera with avirulent lapinized
dry strain ASV viral vaccine. Veterinariia 37 no.10:29-32
0 '60. (MIRA 15:4)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Hog cholera) (Vaccination)

GOLUBEV - PROF. BELORUSSIAN NIVI

GOLUBEV, I.Ye., prof.; BOYKO, M.S., kand. biolog. nauk;
KHOKHLOVA, I.I., mladshiy nauchnyy sotrudnik

The right regimen of animals. Veterinariia 40 no.4:67-69
Ap '63. (MIRA 17:1)

1. Belorusskiy nauchno-issledovatel'skiy institut zhivot-
novodstva.

VOLYNTSEV, Ye., zasluzhennyy uchitel' shkol Rossiyskoy Sotsialisticheskoy Federativnoy Sovetskoy Respubliki (Moscow); GOLUBEV, K. (Moscow); KISELEVA, A. (Moscow) [reviewers]; BOGDANOV, N.M.; BORISOV, S.A.; ERISHOV, I.S.; STRATILATOV, P.V. [authors].

New methodological manual for schools for the working youth ("Problems in teaching mathematics in the 5th - 10th grades of schools for the working youth." N.M.Bogdanov, S.A.Borisov, I.S.Ershov, P.V.Stratilatov. Reviewed by E.Volyntsev, K.Golubev, A.Kiseleva).
Mat.v shkole no.6:74-75 N-D '53. (MLRA 6:12)
(Mathematics--Study and teaching) (Technical education)
(Bogdanov, N.M.) (Borisov, S.A.) (Ershov, I.S.) (Stratilatov, P.V.)

GOLUBEV, K. I., Eng.

Electronic Control

Diagram for automatic operation of reserve supply in electronic regulators, 'Ab. energ.
3, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

34931
S/119/62/000/003/002/009
D201/D303

7,7/20
AUTHORS:

Golubev, L.A., Gorenshteyn, L.M., and Petrukhin, M.I.

TITLE:

A method of fast exact multiplication of binary numbers
in a digital computer

PERIODICAL: Priborostroyeniye, no. 3, 1962, 7 - 9

TEXT: The authors consider an exact multiplication method which obtains $2n$ -digit products with $(n + 1)$ -digit adders and register. The method is based on an adder with a ring carry and a multiplier register with a ring shift. Since in the process of multiplication the least significant digit of the multiplier does not affect the consecutive sums of partial products, when the first sum of partial products is formed, the digit which will not take part in further coding will be the $2n$ -th digit of the product and the $(2n - k + 1)$ -th product digit in the forming of the k -th sum, where k - an integer between 1 and n . This least significant digit is formed at the adder at the beginning of the addition process. As a result, n free digits are formed in the adder which are used in each multi-

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GOLUBEV, L.A.; GORENSHTEYN, L.M.

Method of accelerated division of binary numbers using a digital
computer. Priboroostroenie no.9:10-11 S '63. (MIRA 16:9)
(Electronic digital computers)

NIKOLAYEV, A.M.; GOLUBEV, L.G.

Basic hydrodynamic characteristics of a fluidized bed. Izv. vys.
ucheb. zav., khim i khim. tekhn. 7 no.5:855-857 '64 (MIRA 18:1)

1. Kafedra khimicheskogo mashinostroyeniya Kazanskogo khimiko-
tekhnologicheskogo instituta imeni S.M. Kirova.

GOLUBEV, L.M.

Investigating the effect of paper-pulp vibration in a
beater. Nauch.-tekhn.inform.biul. LPI no.11:107-114 '58.
(MIRA 12:11)

(Paper making machinery--Vibration)

GOLUBEV, L.M. [Golubiy, L.M.]

Effect of "common" infections on the maternal organism and the fetus and its appendages. Pediat. akush. ginek. no.3:

44-47 '63

(MIRA 17:1)

1. Otdel akusherstva i ginekologii (zav. - kand. med. nauk L.T.Volkova) Khar'kovskogo nauchno-issledovatel'skogo instituta okhrany materinstva i detstva (direktor - kand. med. nauk O.I.Kornilova). Nauchnyy rukovoditel' - prof. V.I.Konstantinov.

GOLUBEV, L.M.

Performance of a machine for dewatering and formation of paper
sheets made of fibrous materials. Trudy LPI no.254:106-114 '65.
(MIRA 19:1)

Golubev, L.S.

001/587

PLATE I BOOK REVIEW

USSR. Ministerstvo svyazi. Rabotniki svyazi. Informatsionnyy sbornik. Krasnaya zvezda. 1979. 100 p. (Seriya: Tekhnicheskaya svyazi). 13,200 copies printed.

Author: M.L. V.I. Lipinskiy; Editor: Ye.S. Korobov and N.M. Kuznetsov; Translator: M.L. V.I. Korobov.

NOTE: This collection of articles is intended for technical personnel of the Ministry of Communications USSR and its subordinate telecommunication establishments.

CONTENTS: The articles in this collection describe various new pieces of Soviet equipment used in electrical communication systems. These include: automatic station equipment, radio amplifiers, transformers, cable relays, converters, rectifiers, and switchboards. No personalization are mentioned. References accompany the articles in footnotes.

Author: Ch.M. and B.K. Kuznetsov, A.G. "Svyaznyy Class" Unit. This article provides telephone line service. The authors describe its principle of operation, and the block diagram of the unit.

Author: Ch. M. 27 - 200 Line Transformer with Lightning Arresters. This power transformer is designed for operation with overhead transmission lines of wire broadcasting systems. The author describes the diagram and design of the transformer.

Author: V.I. Subscribers Telegraph Station of the 4th-Low Capacity System. This station is designed for installation in distant or remote communication centers of the subscribers' automatic telegraph system. Its capacity is 10 subscribers' installations and 3 voice-frequency channels.

Author: V.D. VES Lead-In Cable Cabinet Rack. The author lists a variety of racks for connecting balanced cables of varying capacity. A table indicates the type of mounting plates for each rack. The author also describes circuit diagrams and operation of the rack assemblies.

Author: V.I. VES Lead-In Rack. The author briefly describes the structure and operation of this rack, which serves for connection and commutation of communication cables and over-head lines, and for protection of station equipment.

Author: M.Y. G.A. Vol'fson, and V.D. Shcherbakov. Constant Voltage Direct Current Converters with Transformer Triodes. These converters provide power supply for communication equipment by means of single battery. The author also describes the structure and operation of the converters, and details of application and components. The results of experiments with 3 types of converters are shown in a table.

Author: L.S. VES-36/30 Rectifier Assembly. The rectifier serves as a power supply for equipment used in intra-urban and intra-oblast telecommunication and in dial telephone systems. The author gives the circuit diagram and design of the assembly, diagram and structural details of the new board.

Author: L.S. DOK-1 Combined Switchboard. The switchboard connects local subscribers' lines, subscribers and connects long distance lines with local telephone systems. The article describes circuit diagrams of the automatic switchboard, and details of application and components and the assemblies as the whole.

Author: M.M. VES-1 Drilling Rig. The rig drills the holes for overhead line poles. The author describes the functional diagram, design, and operation of the assembly.

AVAILABILITY: Library of Congress

001/587

GOLUBEV, L. S.

PHASE I BOOK EXPLOITATION

SOV/4823

Kokoshkin, Pavel Aleksandrovich, and Lev Solomonovich Golubev

Novyye avtomatizirovannyye vypryamitel'nyye ustroystva dlya elektropitaniya apparatury provodnoy svyazi; informatsionnyy sbornik (New Automated Rectifier Devices for the Power Supply of Wire-Communication Apparatus; Information Handbook) Moscow, Svyaz'izdat, 1960. 73 p. (Series: Tekhnika svyazi) 12,500 copies printed. Errata slip inserted.

Sponsoring Agencies: Tekhnicheskoye upravleniye Ministerstva svyazi SSSR; Tsentral'noye konstruktorskoye byuro Ministerstva svyazi SSSR.

Resp. Ed.: V.N. Kuleshov; Tech. Ed. S.F. Karabilova; Ed.: N.M. Kondrashina.

PURPOSE: This handbook is intended for technical personnel concerned with the automation of the power supply in wire-communication apparatus.

COVERAGE: The handbook contains a short description of the designs and circuits of the new automated VU rectifier devices developed by the Tsentral'noye konstruktorskoye byuro Ministerstva svyazi SSSR (Central Design Office of the

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New Automated Rectifier Devices (Cont.)

SOV/4823

Ministry of Communications USSR) at the request of the Tekhnicheskoye upravleniye (Technical Administration) of that Ministry. Characteristics of semiconductor rectifiers and cold-rolled steels used in these devices, as well as methods of engineering design of their principal components are reviewed. Sections 1, 2, 3, 4, and 6 were written by P.A. Kokoshkin; section 5 by L.S. Golubev. There are 10 references, all Soviet.

TABLE OF CONTENTS:

Foreword	3
1. New Series of Automated Rectifier Devices For the Power Supply of Wire-Communication Apparatus	4
2. Diagram and Principle of Operation of the Rectifier Device	9
3. Semiconductor Rectifiers	18
4. Transformers and Saturable Reactors Used in Rectifier Devices	35

Card-2/5

L 11893-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(s) JD/GG

ACC NR: AT6002249

SOURCE CODE: UR/2564/65/006/000/0193/0198

AUTHOR: ^{44 55} Golubev, L.V.; ^{44 55} Tuchkevich, V.M.; ^{44 55} Shmartsov, Yu. V. 48
2+1

ORG: none

TITLE: Growing of heavily doped dislocation-free germanium single crystals

SOURCE: AN SSSR. Institut kristallografi. Rost kristallov, v. 6, 1965, 193-198

TOPIC TAGS: single crystal growing, germanium single crystal, antimony, gallium, crystal dislocation

ABSTRACT: After discussing the effect of the conditions of ^{21,44,55} growing single crystals by Czochralski's method on the dislocation density, the authors discuss the technique which they used to grow germanium single crystals doped with Sb or Ga and relatively free of dislocations. Two types of apparatus were employed: one for growing small-diameter crystals in a hydrogen atmosphere, and another for growing crystals up to 30 mm in diameter in a vacuum. The dislocation density was measured with an MBI-6 microscope after alkaline etching of polished sections. Fifteen germanium single crystals containing impurities in concentrations from 10^{17} to 10^{19} cm⁻³ for Sb and from 10^{17} to

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ACC NR: AT6002249

$6 \times 10^{19} \text{ cm}^{-3}$ for Ga were grown. The dependence of dislocation mobility on the concentration of Sb in Ge was studied at 290 and 4.2K. The mobilities observed at 4.2K, up to $1100 \text{ cm}^2/\text{V sec}$ in samples with impurity concentrations in excess of 10^{18} cm^{-3} , were the highest of all obtained thus far. Orig. art. has: 5 figures and 2 formulas.

SUB CODE: 20,11/ SUBM DATE: none / ORIG REF: 013 / OTH REF: 017

SC
Card 2/2

USSR/ Miscellaneous - Communications

Card 1/1 Pub. 133 - 10/23

Authors : Golubev, M. A., Senior Economist of the Leningrad Division of Mail
Transportation Service at the "Moscow RR Station" (Leningrad Terminal)
Title : Cutting down production costs by the Division of Mail Transportation
Service (Leningrad RR Terminal Station)

Periodical : Vest. svyazi 11, 16 - 17, Nov 1954

Abstract : Data on the net-cost of mail handling, for the years 1945-1953, at
the "Moscow RR Station" in Leningrad, are presented. It appears that
the net-cost of handling the various classes of mail within the premises
of the station, from the moment of its arrival until its delivery to the
train, has been cut, during the above mentioned period, by 60%. Plans
for further reduction of net-cost of mail handling are outlined. Graph.

Institution:

Submitted:

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